

# CM-30 CM-30W

## MINIATURE SUPERCARDIOID CONDENSER MICROPHONE



The Crown® CM-30 is a professional-quality, supercardioid condenser microphone designed for inconspicuous miking of a choir, orchestra or stage. The mic cable connects to the electronics/faceplate which fits a standard electrical outlet box. The CM-30 can also hang over conference tables or discussion groups for inconspicuous isolated miking.

Because of its supercardioid pickup pattern, the CM-30 rejects background noise and room reverberation, and improves gain-before-feedback more than a cardioid microphone.

The CM-30 has a smooth, wide-range frequency response for natural reproduction of the singing voice, organ or other musical instruments. Extreme low frequencies are filtered out to reduce pickup of room rumble.

The microphone output is balanced, low impedance. It is protected against static and radio frequency interference. A built-in removable hanger allows easy position adjustment by bending the lower portion of the hanger. The CM-30 requires 12-48V phantom power. The CM-30 is black; the CM-30W is white.

### Operating Instructions

The CM-30 consists of the microphone, attached 30-ft (9.5-m) cable, and associated electronics. The electronics PC board is mounted to the rectangular electrical plate (provided) as shown in Fig. 4. The mating electrical backbox should be installed at the mounting location. Input and output screw terminals eliminate the need for cable connectors. The provided strain relief acts as a cable clamp when securely tightened.

Recommended microphone placement for sound reinforcement is shown in Figs. 5a and 5b. For recording or broadcast, you might want to place the microphone a few feet farther away to pick up more room acoustics. Bend the wire hanger to achieve the desired pickup angle.

### Architects' and Engineers' Specifications

The microphone shall be the Crown CM-30. It shall be a professional-quality supercardioid condenser microphone designed for inconspicuous miking of a choir or other large musical ensembles. It shall be hung from the ceiling, where its cable shall connect to electronics installed in a standard electrical outlet box.

Frequency response shall be 40 Hz to 20,000 Hz. Extreme low frequencies shall be filtered out to reduce pickup of room rumble. Open-circuit

### Features

- Ideal for picking up choirs
- Supercardioid polar pattern aids gain-before-feedback and rejects background noise
- Small and inconspicuous
- Hanger allows position adjustment
- Electronics mount in a standard electrical outlet box

### Specifications

**Type:** Unidirectional condenser.

**Transducer:** Electret condenser.

**Frequency Response (typical):** 40 Hz to 20,000 Hz. See Fig. 1.

**Polar Pattern:** Supercardioid (see Fig. 2).

**Impedance:** 150 ohms, balanced. Recommended minimum load impedance 1000 ohms.

**Open Circuit Sensitivity:** 10 mV/Pa\* (-40 dB re 1 volt/Pa).

**Power Sensitivity:** -37.5 dB re 1 mW/Pa.

**Equivalent Noise Level:** 28 dB SPL typical (0 dB = 0.0002 dyne/cm<sup>2</sup>), A-weighted.

**S/N Ratio:** 66 dB at 94 dB SPL.

**Maximum Sound Pressure Level:** 120 dB SPL produces 3% THD.

**Input Connectors:** Screw terminals.

**Output Connectors:** Screw terminals.

**Operating Voltage:** Phantom power, 12 to 48 volts DC, positive voltage on pins 2 and 3 with respect to pin 1 of output terminal.

**Current drain:** 4.5 milliamperes.

**Materials:** Brass housing, steel faceplate.

**Finish:** Black (CM-30) or white (CM-30W) microphone, white faceplate.

**Weight (microphone and cable):** 4 ounces (113 grams).

**Weight (microphone, cable and circuit):** 7.5 ounces (212 grams).

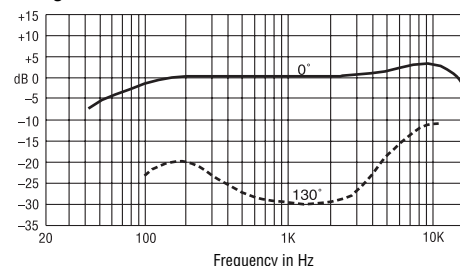
**Cable:** Black (CM-30) or white (CM-30W), 30-ft (9.15-m) 2-conductor shielded 0.1-in. (0.254-cm) diameter cable from microphone to electronics; none supplied for electronics output. Use 2-conductor shielded microphone cable.

**Dimensions:** See Fig. 3 on reverse side.

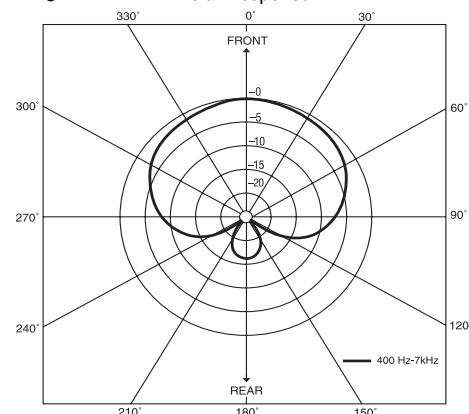
**Included Accessories:** WS-5 windscreens (black or white).

**Optional Accessories:** Crown PH-1A phantom power supply (1 channel, battery or AC adaptor powered).

**Fig. 1** Frequency Response



**Fig. 2** Polar Response



\*1 pascal = 10 dynes/cm<sup>2</sup> = 10 microbars = 94 dB SPL.



INSTALLED

# CM-30 CM-30W

Fig. 3

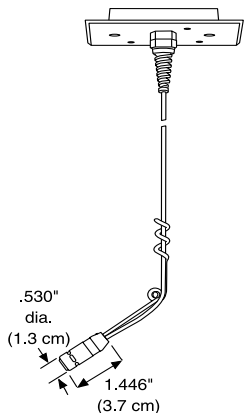


Fig. 5a

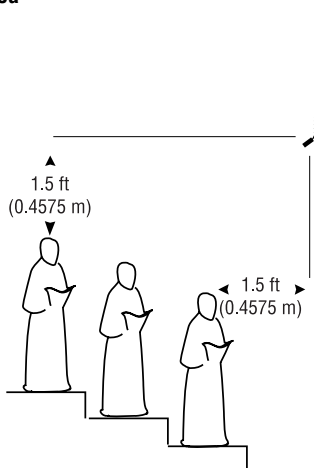
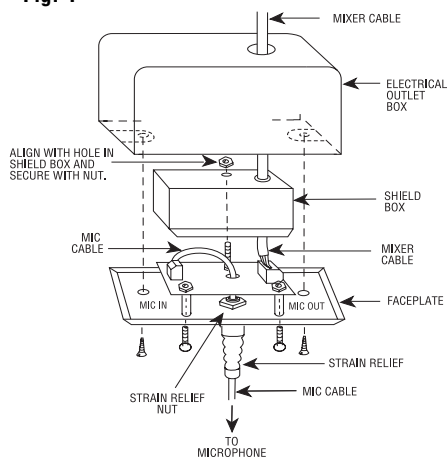


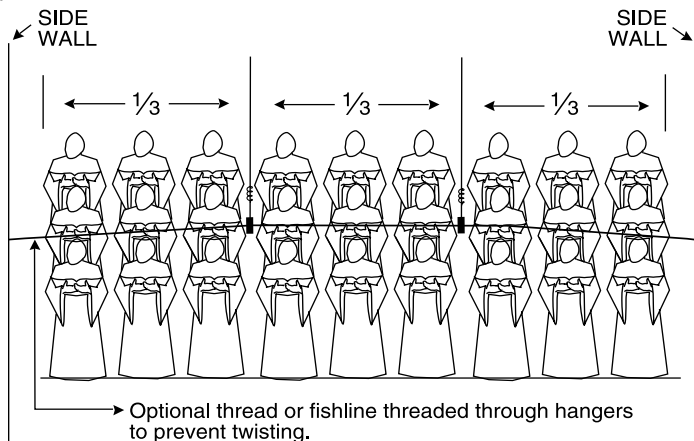
Fig. 4



sensitivity shall be 10 mV/Pa. Equivalent noise level shall be 28 dBA SPL typical; SPL for 3% THD shall be 120 dB. The microphone output shall be balanced, low impedance, with RFI and static protection.

A built-in removable hanger shall allow position adjustment. Input and output connections shall be screw terminals. Operating voltage shall be standard phantom power, 12 to 48 volts DC, positive voltage on pins 2 and 3 with respect to pin 1 of output connector. Finish shall be black (CM-30) or white (CM-30W) with white faceplate. The cable shall be black (CM-30) or white (CM-30W), 30-ft (9.5-m) 2-conductor shielded, from microphone to electronics.

Fig. 5b



### Warranty

Crown professional microphones are guaranteed against malfunction for a period of three years from date of original purchase. See enclosed warranty sheet for additional information.

### Service

If the microphone does not function properly, verify that it is placed correctly and is connected as described in the Operating Instructions. Also check mic cables and your power supply. If service is required, return the microphone and electronics in their original packaging to: **Crown Factory Service, 1718 W. Mishawaka Road, Elkhart, IN 46517-9439.**

**A Service Return Authorization (SRA) is required for product being sent to the factory for service. An SRA can be completed on line at [www.crownaudio.com/support/factserv.htm](http://www.crownaudio.com/support/factserv.htm).**

**Note: The mic and its electronics are a matched pair. For service both parts must be returned. For further assistance or technical support call 800-342-6939.**



H A Harman International Company

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